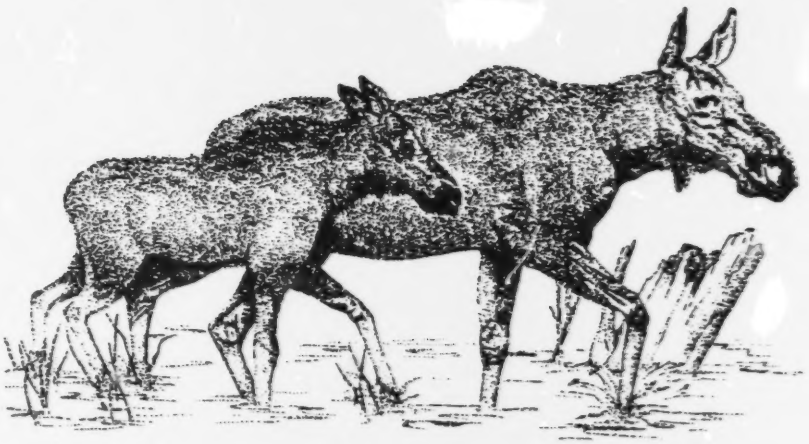
MOOSE

HARVEST STATISTICS

1987

New Brunswick



GERALD REDMOND &

RODERICK CUMBERLAND

FISH & WILDLIFE BRANCH

DEPT. OF NATURAL RESOURCES

BOX 6000, FREDERICTON, N.B.

E3B 5H1

I N T R O D U C T I O N

The total number of applications submitted for the 1987 moose draw was 37,625 which represented a decline of 4 percent from the number of 1986 applications. The number of applications submitted annually does not truly represent the interest level in moose hunting since moose licence holders during the previous 5 years (estimated to be 25,000) were not eligible for the 1987 draw.

The 1987 moose hunt was the most successful on record with 1,838 moose registered out of a total of 5,210 licenced hunters. This represents a province-wide success rate of approximately 35 percent, up from 31 percent in 1986.

Adult and yearling cow moose comprised 19 percent and 8 percent, respectively, of the known-age harvest. Adult and yearling bull moose made up 42 percent and 22 percent, respectively, of the registered kill; calves (both sexes) composed 9 percent of the total harvest. With the exception of the counties of Gloucester, Kings, and Westmorland, the ratio of adult cows : adult bulls remained below 0.5.

The 1987 moose season was the 14th consecutive year that New Brunswick has implemented a 3-day season and a limited draw of 6000 licences. The 1987 moose season was:

September 24, 25, 26
(Residents-Only Eligible)
Fee : $25.00

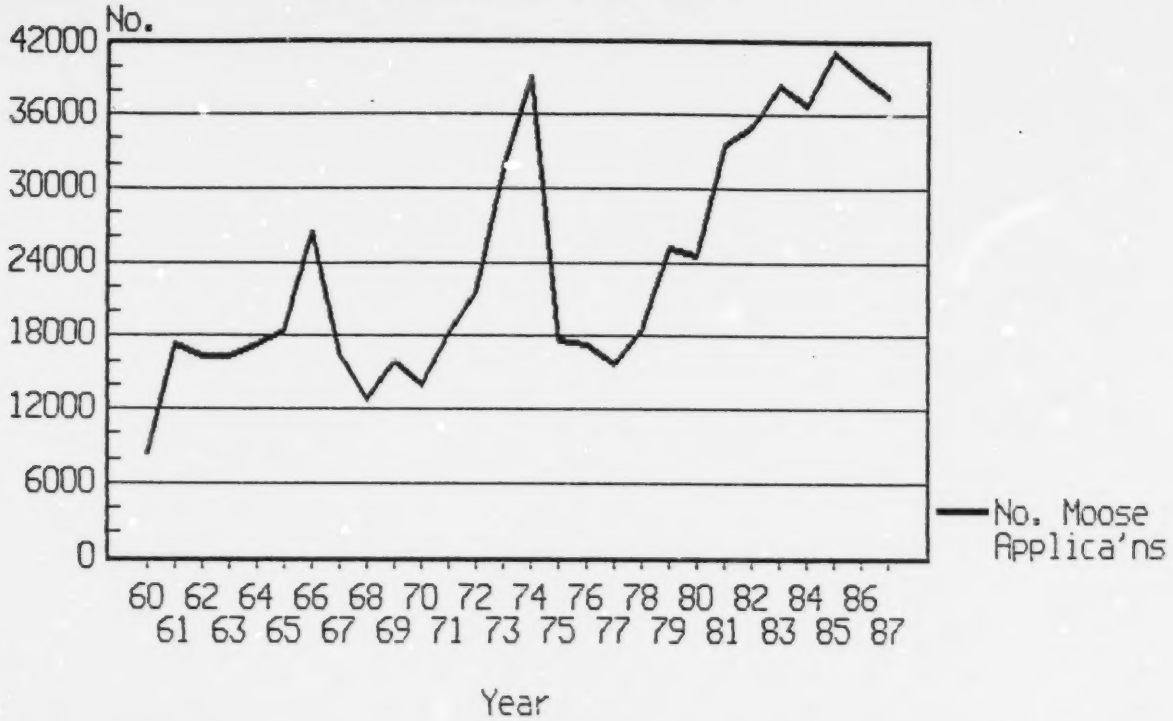
The only change for the 1988 moose season will be a closure of Zone C (Lake Stream Moose Management Area). This area will be closed for a 3 to 5 year period to test the effect of hunting in the moose population dynamics model developed by Dr. Arnold Boer. The study area will be aerially surveyed periodically during the closed period. Special enforcement arrangements have been made with staff from Region 3. It is expected that other management techniques such as selective harvest, designated routes, limited access, etc., will be tested in the Lake Stream area in subsequent years, for possible implementation elsewhere in the Province. It appears likely that the current manual moose licence draw system will be replaced by a computerized draw by 1989 or 1990.

The following report summarizes much of the biological information collected in 1987. Sincere thanks are extended to the many field staff who contributed to the data collection program and assisted during the 1987 moose season.

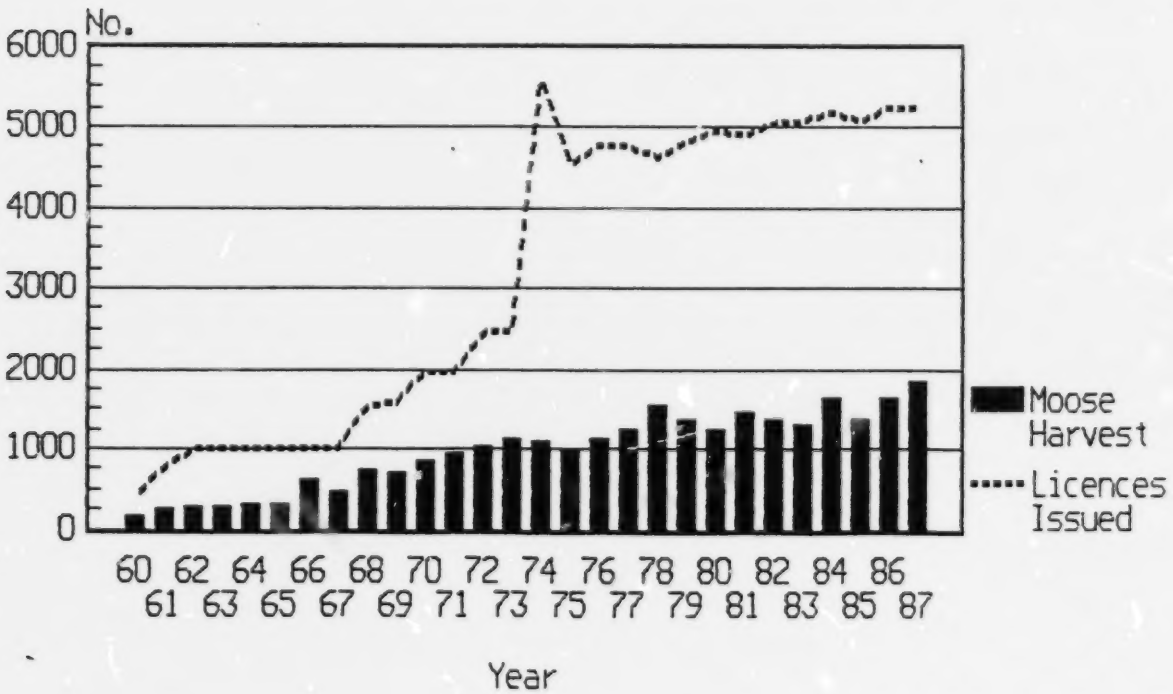
NUMBER OF MOOSE APPLICATIONS, LICENCES ISSUED, AND HARVEST FOR NEW BRUNSWICK, 1960-1987

Year	No. of Applications Submitted	No. of Applications Selected	No. of Licences Issued	No. of Moose Harvested
1960	8,321	400	383	174
1961	17,221	800	771	262
1962	16,354	1,000	963	297
1963	16,359	1,000	1,000	296
1964	17,380	1,000	1,000	307
1965	18,460	1,000	1,000	314
1966	26,500	1,000	1,000	606
1967	16,500	1,000	1,000	469
1968	12,724	1,500	1,500	724
1969	16,009	1,600	1,566	707
1970	14,016	2,000	1,959	858
1971	18,334	2,000	1,959	931
1972	21,639	2,500	2,441	1,043
1973	31,558	2,500	2,460	1,127
1974	39,157	6,000	5,580	1,085
1975	17,587	6,000	4,528	969
1976	17,347	6,000	4,753	1,131
1977	15,815	6,000	4,746	1,246
1978	18,547	6,000	4,604	1,547
1979	25,007	6,000	4,786	1,360
1980	24,503	6,000	4,935	1,230
1981	33,500	6,000	4,892	1,436
1982	35,000	6,000	5,032	1,344
1983	38,302	6,000	5,065	1,287
1984	36,727	6,000	5,175	1,618
1985	41,104	6,000	5,063	1,346
1986	39,127	6,000	5,228	1,625
1987	37,625	6,000	5,210	1,838

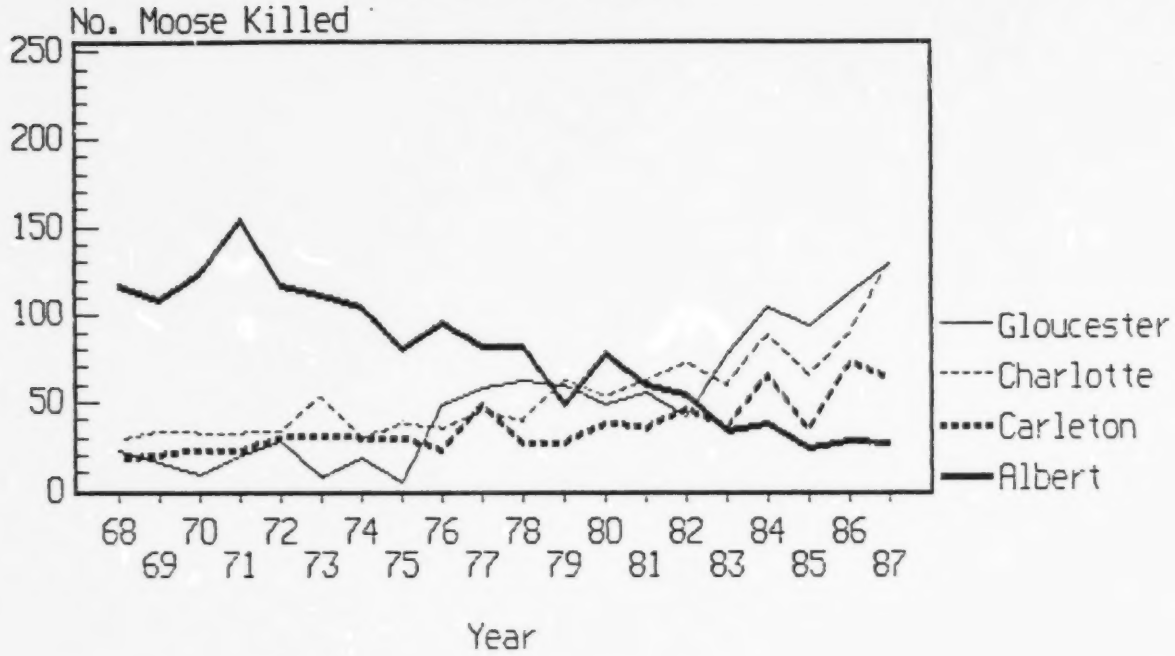
MOOSE APPLICATIONS SUBMITTED
New Brunswick, 1960-1987



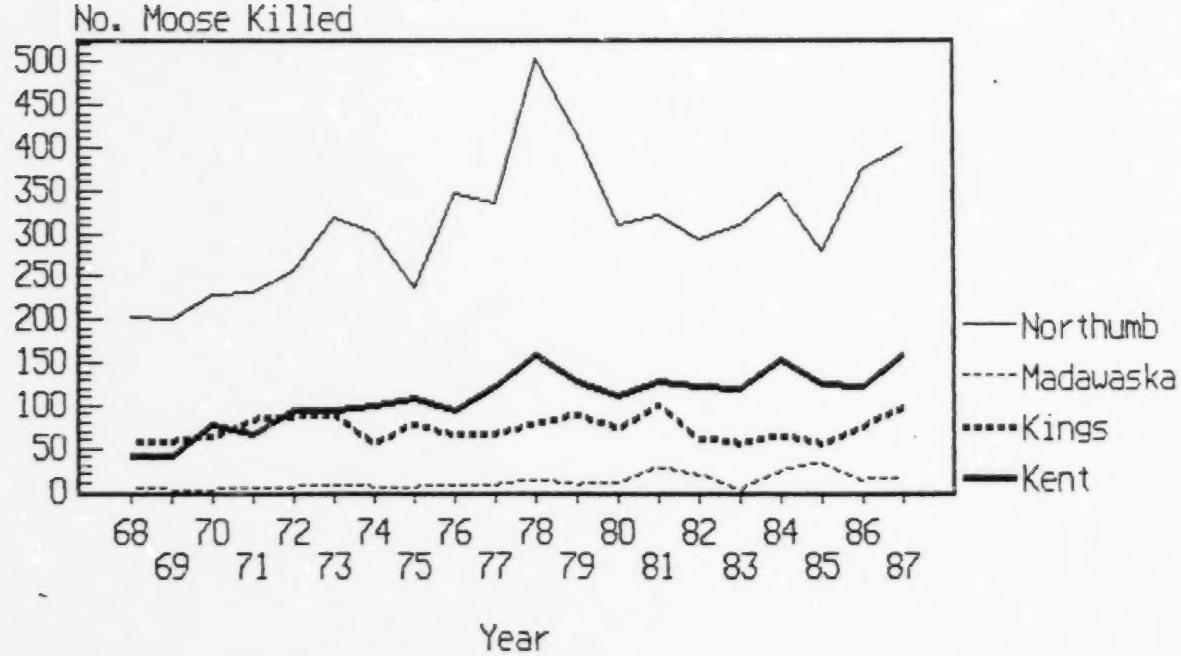
MOOSE LICENCES ISSUED AND HARVEST
New Brunswick, 1960-1987



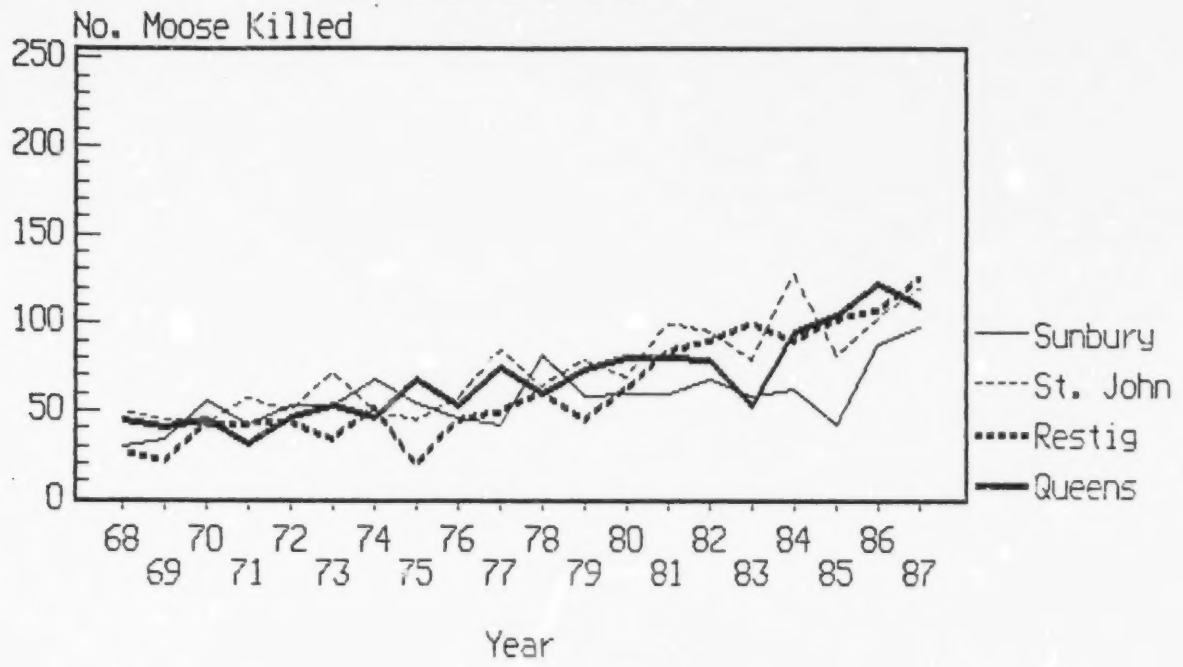
MOOSE HARVEST TRENDS FOR:
ALBERT, CARLETON, CHARLOTTE
AND GLOUCESTER COUNTIES
New Brunswick 1968-1987



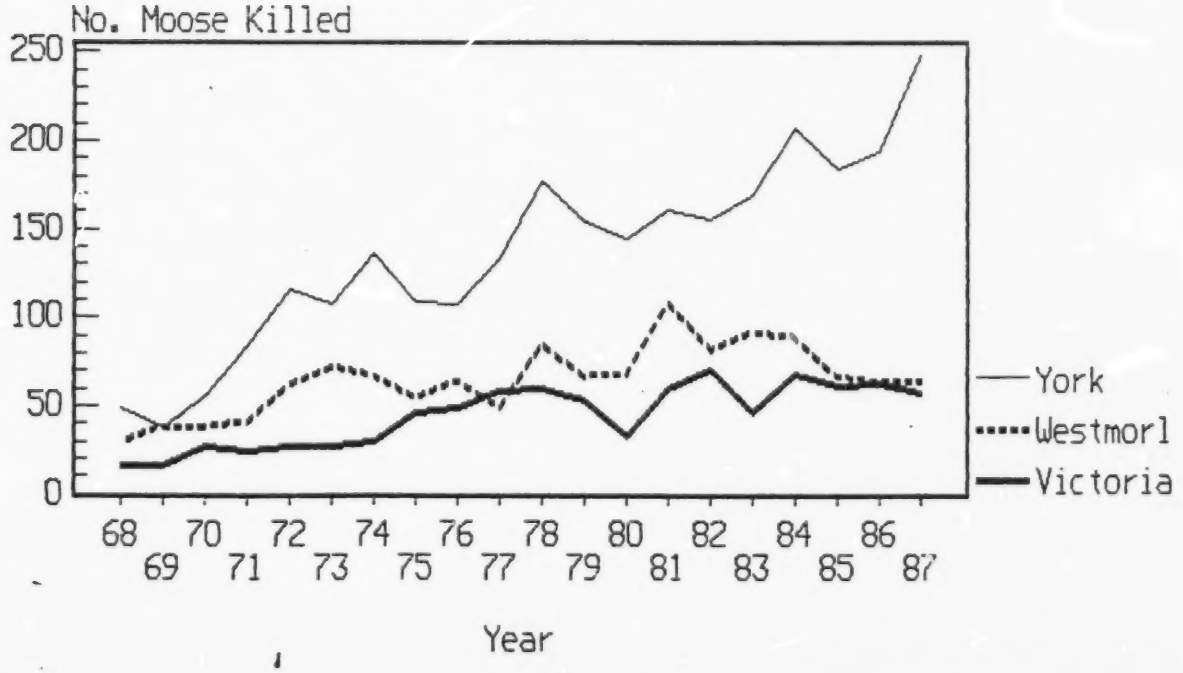
MOOSE HARVEST TRENDS FOR:
KENT, KINGS, MADAWASKA
AND NORTHUMBERLAND COUNTIES
New Brunswick 1968-1987



MOOSE HARVEST TRENDS FOR:
QUEENS, RESTIGOUCHE, ST. JOHN
AND SUNBURY COUNTIES
New Brunswick, 1968-1987



MOOSE HARVEST TRENDS FOR:
VICTORIA, WESTMORLAND
AND YORK COUNTIES
New Brunswick 1968-1987



AGE AND SEX OF MOOSE HARVESTED IN NEW BRUNSWICK 1960-87

Year	Adult & Yearling		Calf		Total
	Bull	Cow	Male	Female	
Moose season was closed in 1936 and reopened in 1960.					
1960	174	0	0	0	174
1961	262	0	0	0	262
1962	297	0	0	0	297
1963	296	0	0	0	296
1964	307	0	0	0	307
1965	314	0	0	0	314
1966	Not Available		-	-	606
1967	Not Available		-	-	469
1968	472	192	33	27	724
1969	455	191	29	32	707
1970	547	236	24	51	858
1971	574	273	38	46	931
1972	702	261	35	45	1,043
1973	745	296	40	46	1,127
1974	680	284	57	64	1,085
1975	607	284	25	53	969
1976	716	298	53	64	1,131
1977	773	370	46	57	1,246
1978	939	480	58	71	1,547
1979	800	444	50	66	1,360
1980	770	357	49	54	1,230
1981	874	388	63	111	1,436
1982	844	370	60	70	1,344
1983	826	360	45	56	1,287
1984	1,008	475	56	79	1,618
1985	880	328	85	53	1,346
1986	1,055	418	71	81	1,625
1987	1,181	497	72	88	1,838

AGE AND SEX OF MOOSE HARVESTED BY COUNTY
NEW BRUNSWICK, 1987

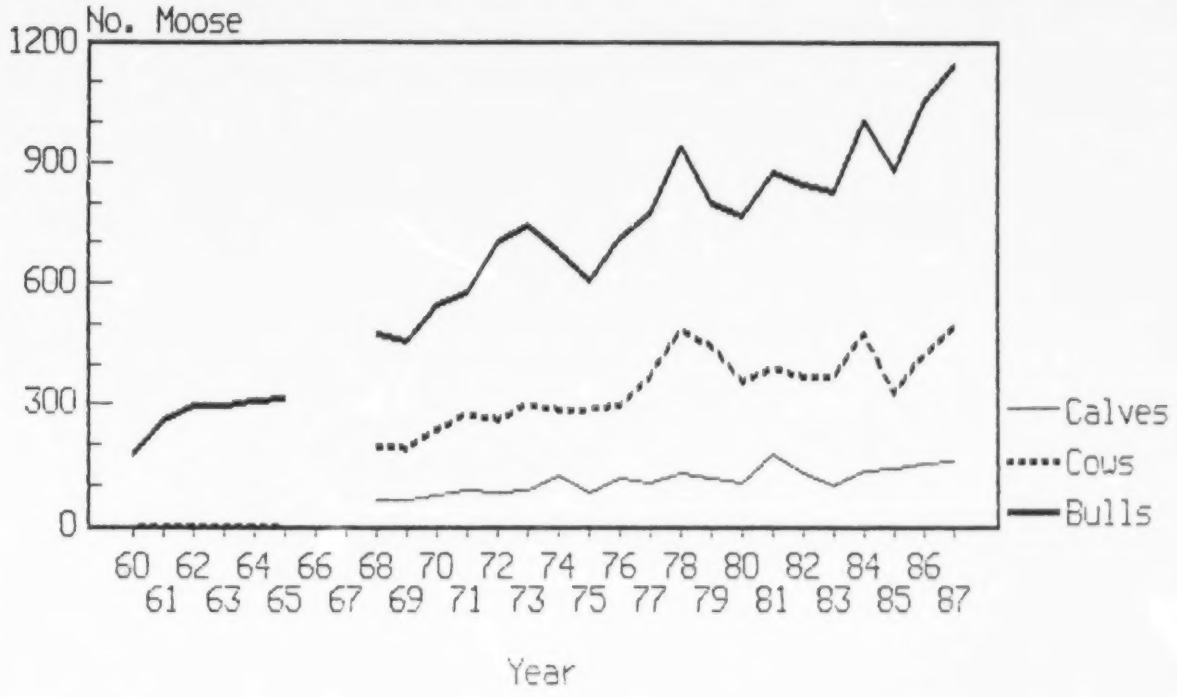
	MALE				FEMALE				
COUNTY	Adult	Yearling	Calf	Unk.	Adult	Yearling	Calf	Unk.	TOTAL
Albert	13	6	1	0	4	2	1	0	27
Carleton	23	10	7	1	11	7	4	0	63
Charlotte	63	25	4	0	21	9	7	0	129
Gloucester	41	22	6	8	29	17	4	2	129
Kent	62	42	4	1	26	9	14	0	158
Kings	35	13	3	0	27	13	6	0	97
Madawaska	6	6	0	0	2	1	1	0	16
Northumberland	161	95	16	18	66	28	14	2	400
Queens	58	18	5	0	19	8	2	0	110
Restigouche	50	27	3	6	28	7	3	1	125
St. John	45	31	5	0	21	5	12	0	119
Sunbury	44	17	3	2	21	6	5	0	98
Victoria	22	15	1	0	10	9	0	0	57
Westmorland	18	16	3	0	14	3	9	0	63
York	105	53	11	3	43	26	6	0	247
PROVINCE	746	396	72	39	342	150	88	5	1838

DISTRIBUTION OF KILL BY AGE CLASS FOR MALE AND FEMALE MOOSE IN NEW BRUNSWICK, 1987

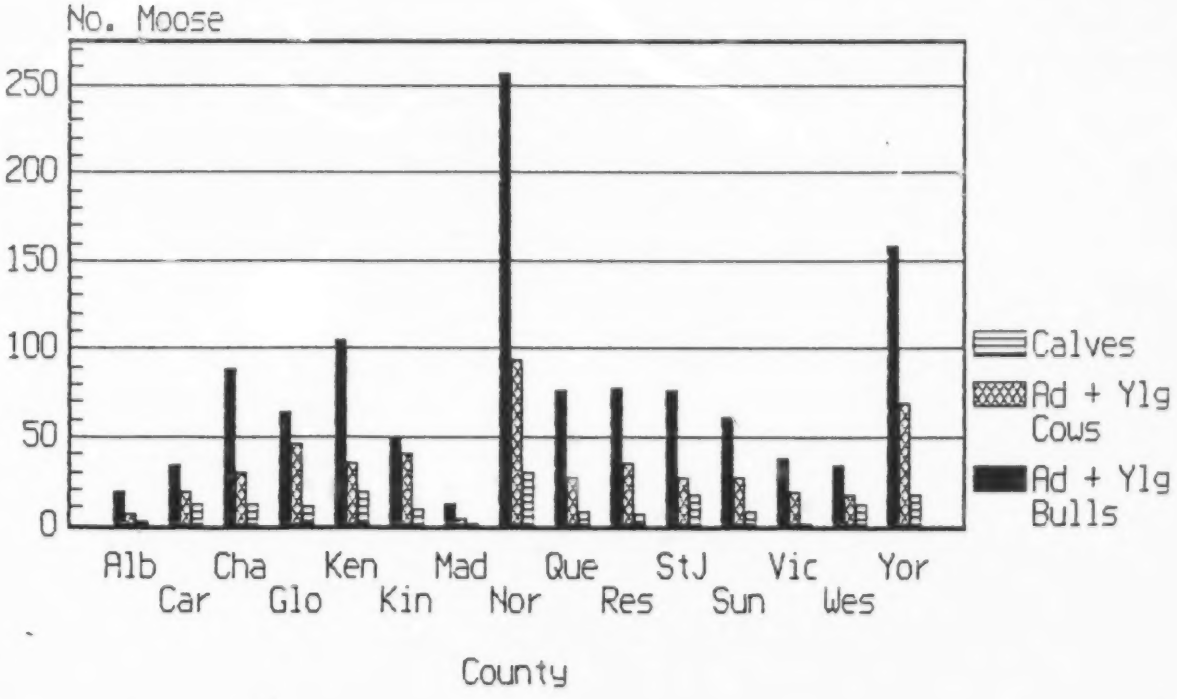
COUNTY OF KILL	AGE AND SEX CLASS																							
	0.5		1.5		2.5		3.5		4.5		5.5		6.5		7.5		8.5		9.5		UNKNOWN		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Albert	1	1	6	2	2	2	6	2	0	0	3	0	1	0	1	0	0	0	0	0	0	0	20	7
Carleton	7	4	10	7	13	6	7	1	2	0	1	1	0	1	0	1	0	0	0	1	1	0	41	22
Charlotte	4	7	25	9	45	16	13	2	2	2	0	1	1	0	1	0	1	0	0	0	0	0	92	37
Gloucester	6	4	22	17	8	4	14	11	10	3	5	3	2	2	0	3	0	0	2	3	8	2	77	52
Kent	4	14	42	9	24	6	23	10	8	5	4	2	2	1	1	1	0	1	0	0	1	0	109	49
Kings	3	6	13	13	9	11	17	7	6	4	1	3	2	0	0	0	0	2	0	0	0	0	51	46
Madawaska	0	1	6	1	1	1	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	12	4
North'land	16	14	95	28	68	20	49	28	29	11	7	3	2	1	2	2	1	1	3	0	18	2	290	110
Queens	5	2	18	8	28	4	15	9	8	2	3	3	4	0	0	0	0	0	0	1	0	0	81	29
Restigouche	3	3	27	7	21	12	18	10	9	3	0	2	1	1	0	0	0	0	1	0	6	1	86	39
St. John	5	12	31	5	16	2	12	8	12	4	5	6	0	0	0	1	0	0	0	0	0	0	81	38
Sunbury	3	5	17	6	18	7	11	6	12	4	3	3	0	1	0	0	0	0	0	0	2	0	66	32
Victoria	1	0	15	9	9	5	5	4	7	1	1	0	0	0	0	0	0	0	0	0	0	0	38	19
West'land	3	9	16	3	6	1	5	7	7	4	0	2	0	0	0	0	0	0	0	0	0	0	37	26
York	11	6	53	26	65	23	25	14	7	1	3	1	2	3	2	0	1	0	0	1	3	0	172	75
TOTAL	72	88	396	150	333	120	222	120	122	44	36	30	17	10	7	8	3	4	6	6	39	5	1253	585

GRAND TOTAL MOOSE HARVESTED IN N.B. = 1838

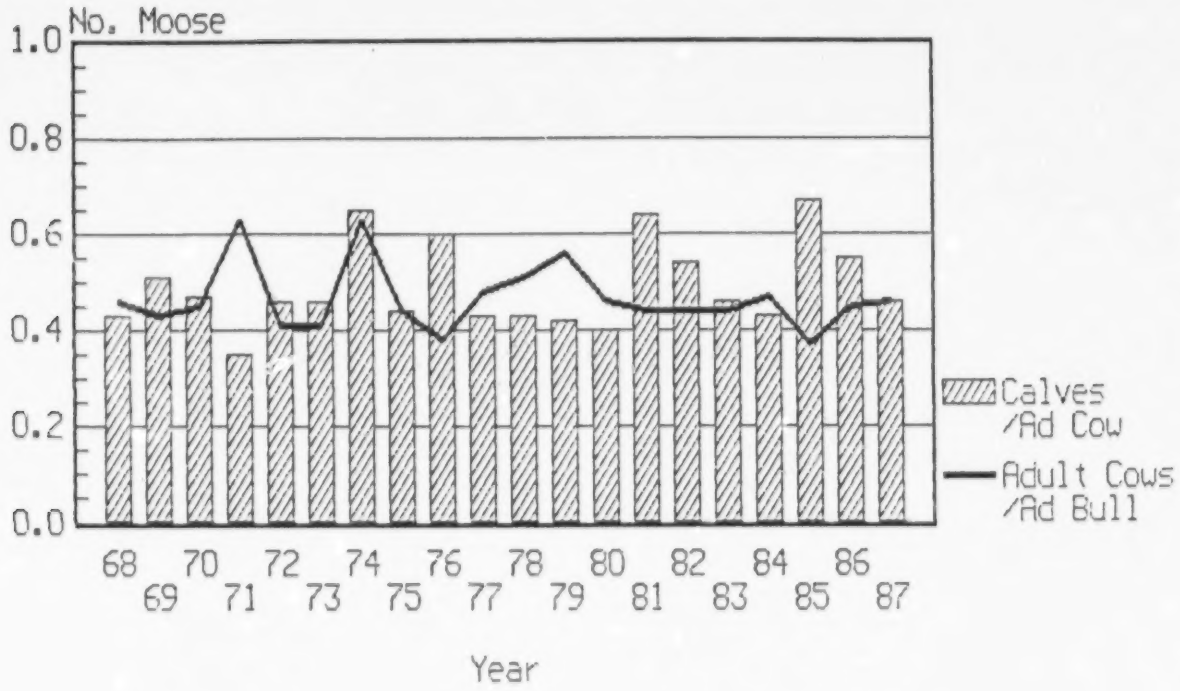
MOOSE HARVEST - AGE / SEX STRUCTURE
New Brunswick 1960-1987



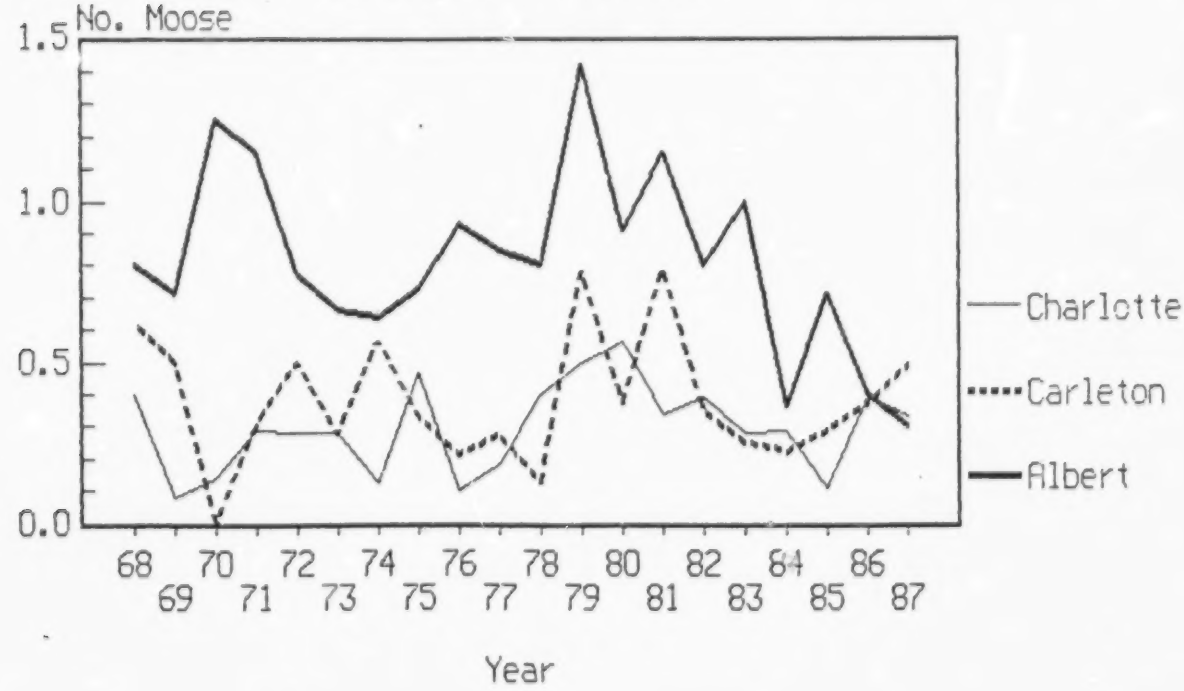
MOOSE HARVEST - AGE / SEX BY COUNTY
New Brunswick, 1987



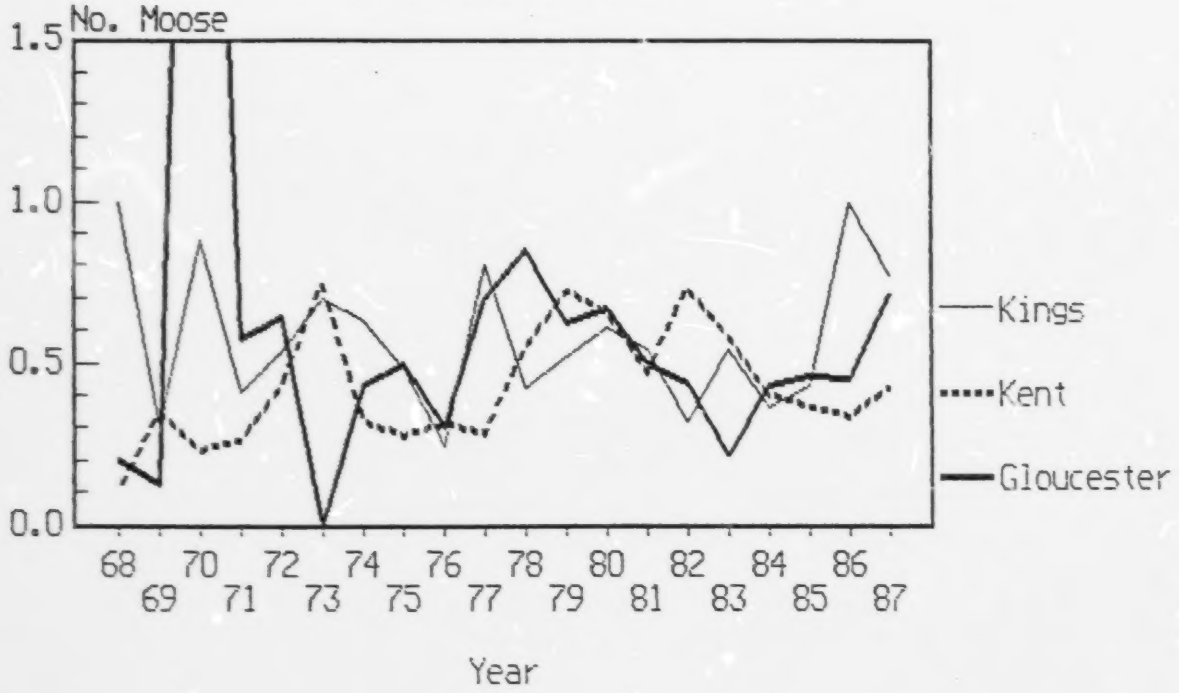
MOOSE HARVEST - PRODUCTIVITY RATIOS
New Brunswick 1968-1987



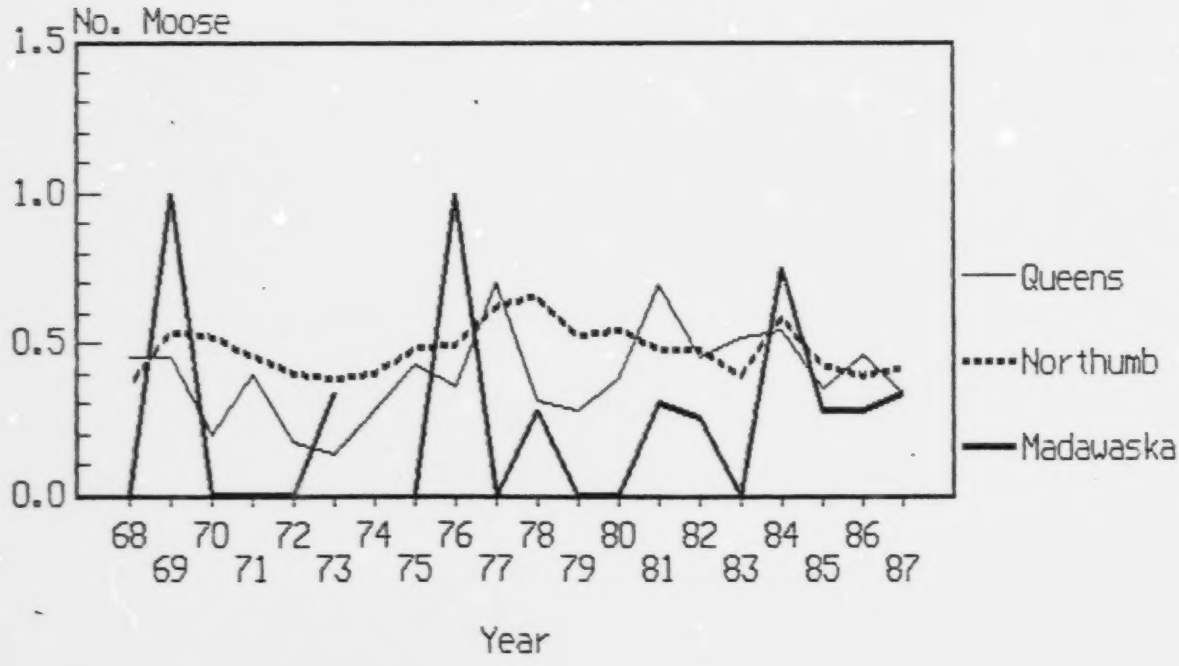
MOOSE HARVEST - AD. COW/AD. BULL RATIOS
ALBERT, CARLETON, CHARLOTTE COUNTIES
New Brunswick 1968-1987



MOOSE HARVEST - AD. COW/AD. BULL RATIOS
GLOUCESTER, KENT, KINGS COUNTIES
New Brunswick 1968-1987



MOOSE HARVEST - AD. COW/AD. BULL RATIOS
MADAWASKA, NORTHUMBERLAND,
AND QUEENS COUNTIES
New Brunswick 1968-1987



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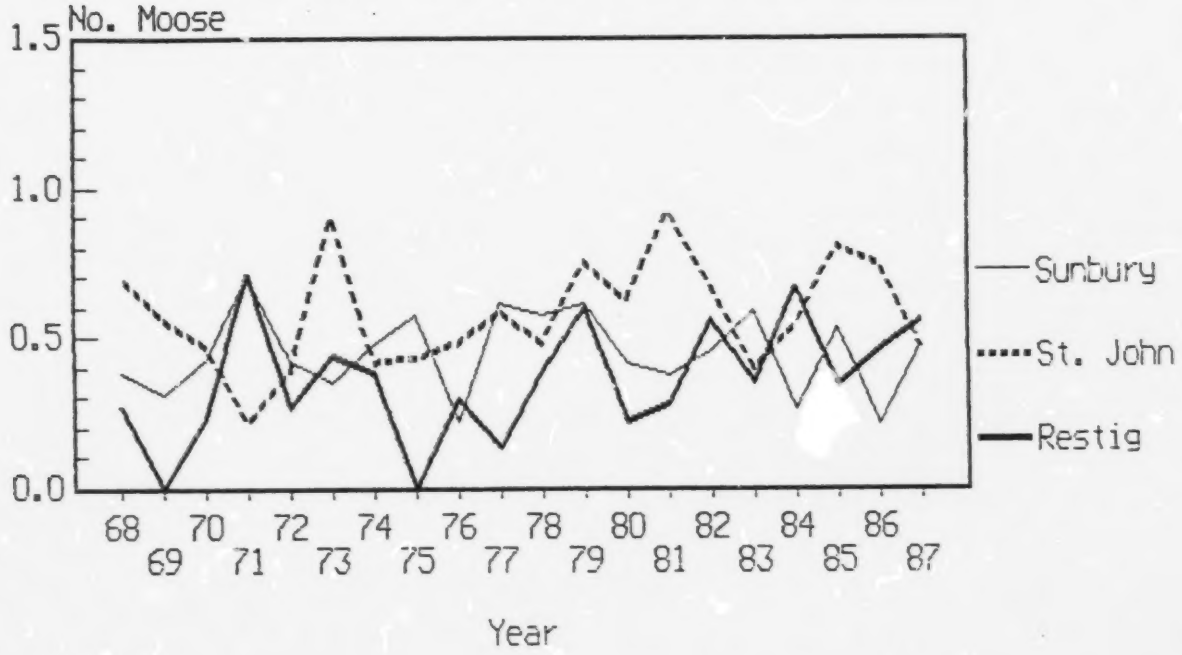
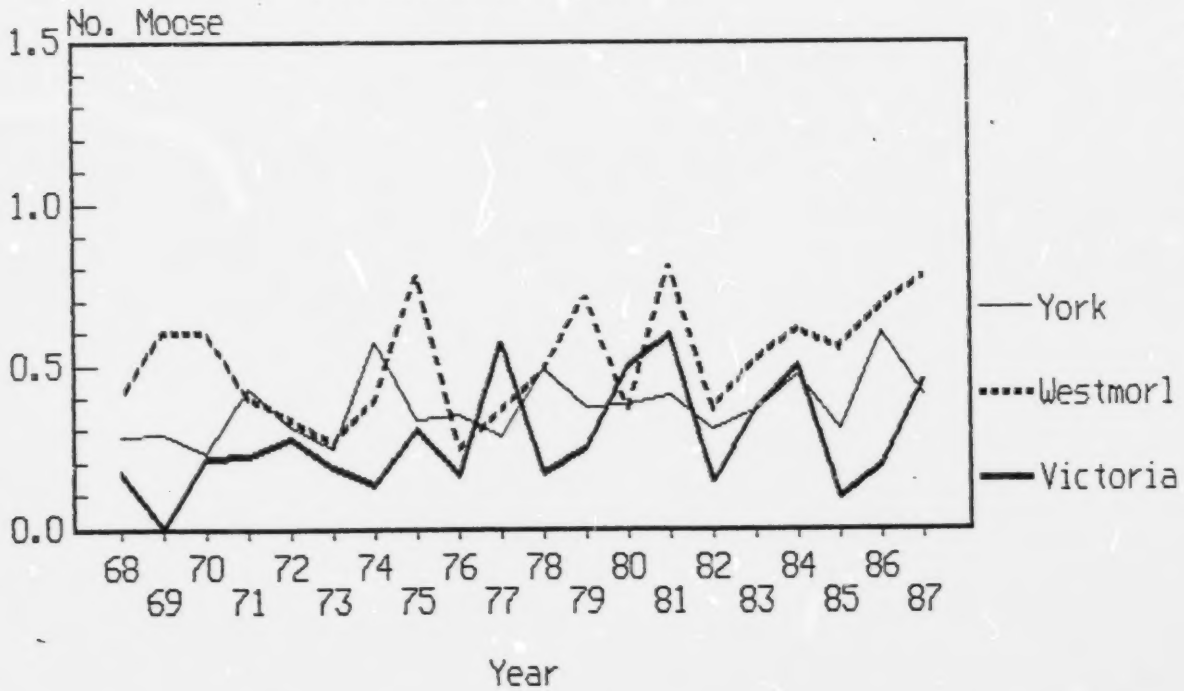
AND SUNBURY COUNTIES
New Brunswick 1968-1987



MOOSE HARVEST - AD. COW/AD. BULL RATIOS
VICTORIA, WESTMORLAND, AND YORK COUNTIES
New Brunswick 1968-1987



DISTRIBUTION OF SUCCESSFUL AND REPORTED UNSUCCESSFUL HUNTERS BY COUNTY OF RESIDENCE, 1987

County of Residence	Successful Hunters	Unsuccessful Hunters	Total Hunters	No. Non-Hunters
Albert	26	45	71	1
Carleton	72	51	123	0
Charlotte	100	85	185	1
Gloucester	282	323	605	8
Kent	139	178	317	1
Kings	144	92	236	0
Madawaska	104	112	216	4
North'land	186	319	505	5
Queens	59	36	95	0
Restigouche	101	111	212	3
St. John	106	146	252	4
Sunbury	98	67	165	0
Victoria	39	93	132	1
West'land	165	195	360	0
York	209	153	362	1
Unknown (Never Completed Survey)	8	1337	1345	0
TOTAL	1838	3343	5181	29

TOTAL LICENCES ISSUED - 5210

AVERAGE AND TOTAL NUMBER OF HOURS SPENT MOOSE HUNTING BY SUCCESSFUL AND REPORTED UNSUCCESSFUL HUNTERS FOR ALL COUNTIES IN NEW BRUNSWICK, 1987

County	Successful Hunters		Unsuccessful Hunters		Total Hours
	Avg. Hrs.	No. Hrs.	Avg. Hrs.	No. Hrs.	
Albert	7.7	383	8.9	1498	1881
Carleton	8.3	860	9.7	1390	2250
Charlotte	6.7	1694	10.4	3002	4696
Gloucester	7.0	1683	10.15	5137	6820
Kent	7.0	2000	9.4	5668	7668
Kings	5.8	968	8.9	2611	3579
Madawaska	6.6	236	9.0	1042	1278
Northumberland	6.9	5145	9.6	15605	20750
Queens	7.1	1446	10.2	2938	4384
Restigouche	7.6	1488	11.2	3639	5127
St. John	6.7	1488	10.0	2592	4080
Sunbury	6.6	1181	9.3	1894	3075
Victoria	6.6	736	10.7	3407	4143
Westmorland	6.7	775	11.1	2372	3147
York	7.4	3496	9.6	5835	9331
AVE./TOTALS	7.0	23,579	9.9	58,630	82,209

NOTE: 1345 unsuccessful moose hunters did not complete the hunter questionnaire.

TOTAL HOURS HUNTED BY BOTH SUCCESSFUL AND REPORTED UNSUCCESSFUL
MOOSE HUNTERS IN NEW BRUNSWICK, 1987

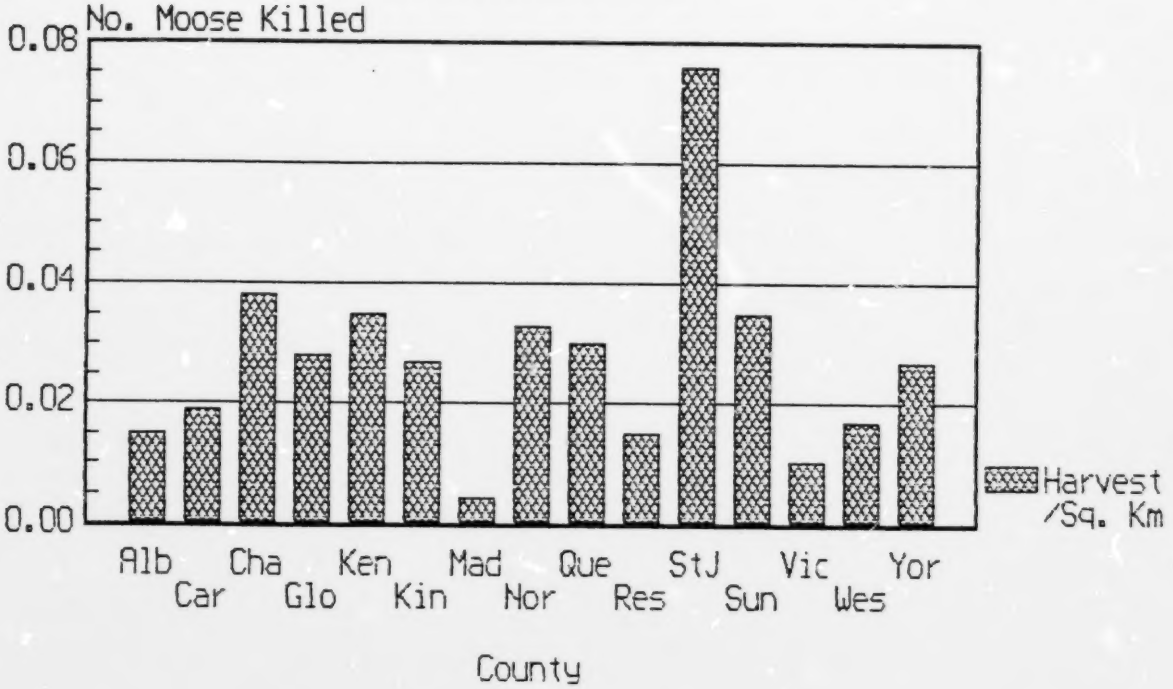
COUNTY OF HUNT	COUNTY OF RESIDENCE															
	ALB	CARL	CHAR	GLOU	KENT	KINGS	MAD	NORTH	QUEENS	REST	ST J	SUN	VIC	WEST	YORK	TOTAL
Albert	833	34	108	0	0	105	0	0	0	0	38	0	0	743	20	1,881
Carleton	0	1722	11	48	0	24	67	0	0	0	0	0	74	59	245	2,250
Charlotte	0	3	2968	84	0	301	6	21	50	0	888	151	11	50	163	4,696
Gloucester	70	0	0	6405	0	0	30	121	0	133	0	0	0	24	37	6,820
Kent	127	0	0	225	5416	0	26	211	150	24	63	115	10	1254	47	7,668
Kings	34	0	79	1	23	1830	0	0	86	0	1013	34	0	366	113	3,579
Madawaska	0	0	0	0	0	0	1209	0	0	0	0	0	69	0	0	1,278
North'ld	184	0	16	5399	705	59	546	10852	105	452	72	158	329	1174	699	20,750
Queens	40	0	48	19	377	759	59	72	820	0	734	650	20	605	181	4,384
Rest	0	0	0	517	0	0	906	0	0	3562	0	36	0	36	70	5,127
St. John	141	0	52	0	0	1088	0	0	12	33	2412	18	0	275	49	4,080
Sunbury	18	0	0	0	0	144	35	10	425	35	218	1763	0	30	397	3,075
Victoria	0	179	0	66	0	0	954	0	0	394	45	0	2457	0	48	4,143
West'land	162	0	0	30	167	0	0	39	36	0	0	0	0	2641	72	3,147
York	63	584	527	173	24	215	893	143	32	22	204	326	325	153	5647	9,331
TOTAL	1672	2522	3809	12967	6712	4525	4731	11469	1716	4655	5687	3251	3295	7410	7788	82,209

TOTAL HOURS HUNTED/KM^2 FOR MOOSE BY COUNTY FOR SUCCESSFUL AND UNSUCCESSFUL HUNTERS IN NEW BRUNSWICK, 1978-87

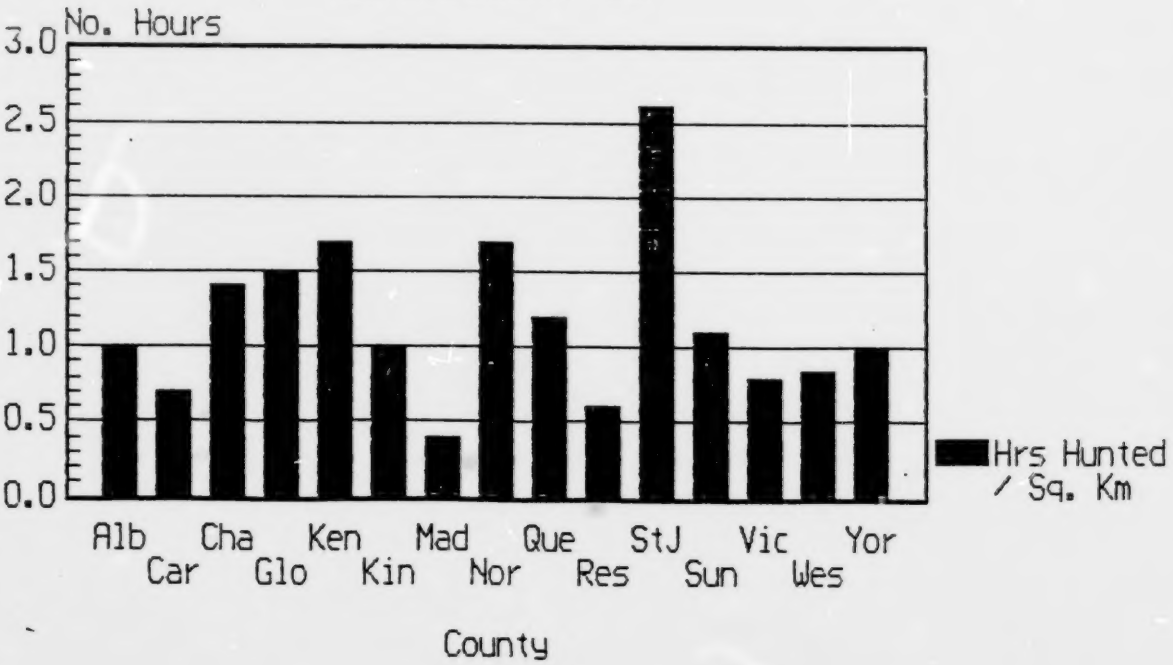
County	78	79	80	81	82	83	84	85	86	87
Albert	3.5	2.4	2.5	3.1	1.4	2.2	1.6	1.1	1.1	1.0
Carleton	0.7	0.9	0.8	0.8	1.0	1.0	1.1	1.0	1.2	0.7
Charlotte	1.2	1.2	1.5	1.4	1.7	1.6	1.6	1.6	1.8	1.4
Gloucester	1.3	1.1	1.3	1.0	1.3	1.5	1.3	2.1	1.8	1.5
Kent	1.8	1.9	1.4	1.6	1.2	2.0	1.4	1.6	1.4	1.7
Kings	1.1	1.6	1.2	1.8	1.8	1.7	1.4	2.0	1.5	1.0
Madawaska	0.2	0.3	0.2	0.5	0.6	0.6	0.2	1.3	0.7	0.4
North'land	2.0	1.1	1.7	1.6	1.4	1.7	1.5	2.6	1.9	1.7
Queens	1.3	1.5	1.1	1.4	1.4	1.7	1.5	1.6	1.7	1.2
Restigouche	0.6	0.4	0.4	0.4	0.6	0.8	0.5	1.1	0.8	0.6
St. John	2.3	2.3	3.0	0.5	3.5	3.3	3.4	3.6	4.0	2.6
Sunbury	1.3	1.4	1.2	1.4	1.2	1.7	1.4	1.3	1.5	1.1
Victoria	0.8	0.7	0.6	0.7	0.8	0.8	0.6	1.2	1.0	0.8
West'land	0.9	1.4	1.2	1.6	0.5	1.5	1.3	1.0	1.1	0.8
York	1.3	1.4	1.3	1.2	1.3	1.5	1.3	1.6	1.5	1.2

NOTE: Not all unsuccessful hunters completed hunter questionnaires.

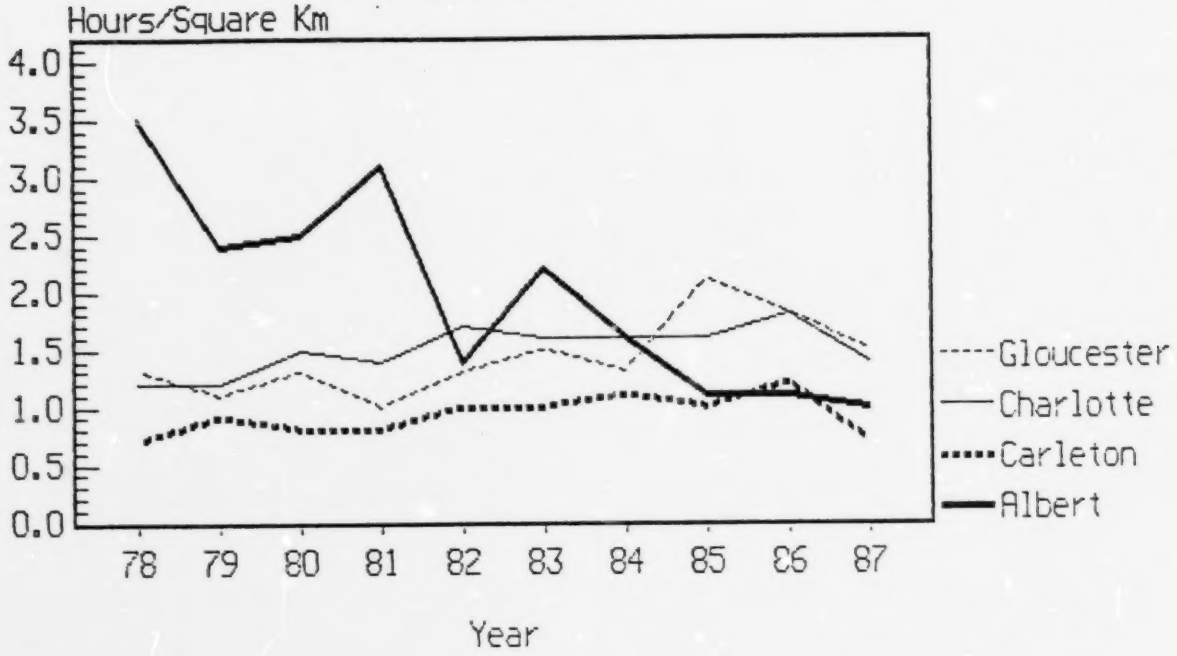
MOOSE
HARVEST / SQUARE Km BY COUNTY
New Brunswick, 1987



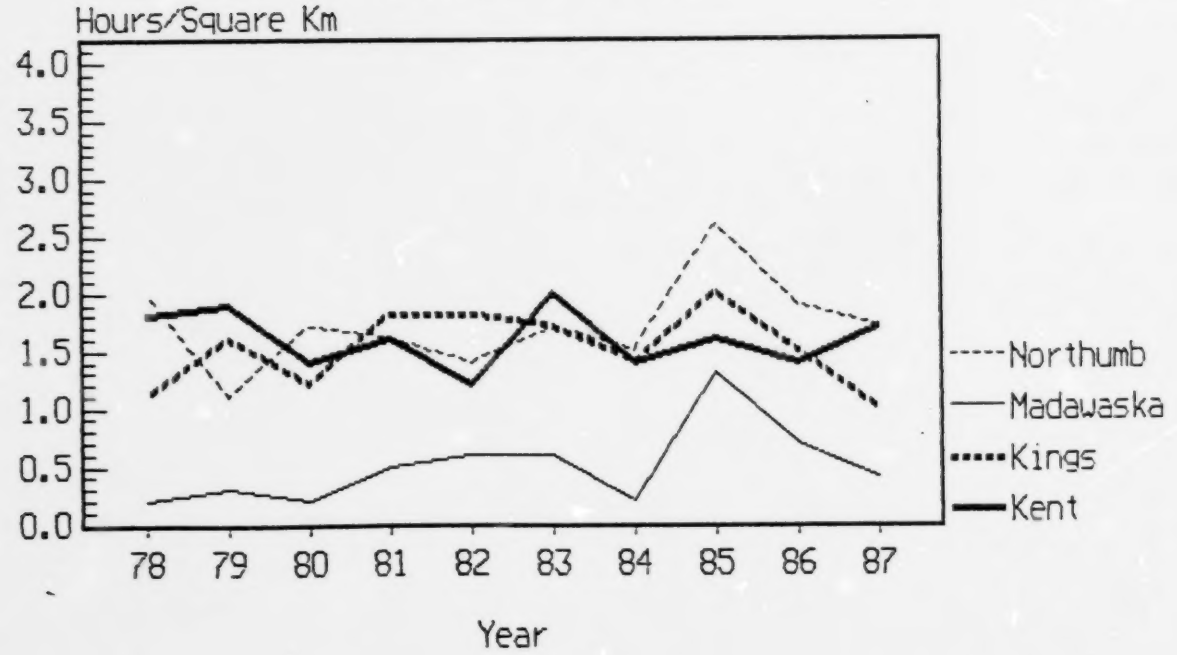
MOOSE
HOURS HUNTED / SQUARE Km FOR SUCCESSFUL
AND REPORTED UNSUCCESSFUL HUNTERS
New Brunswick, 1987



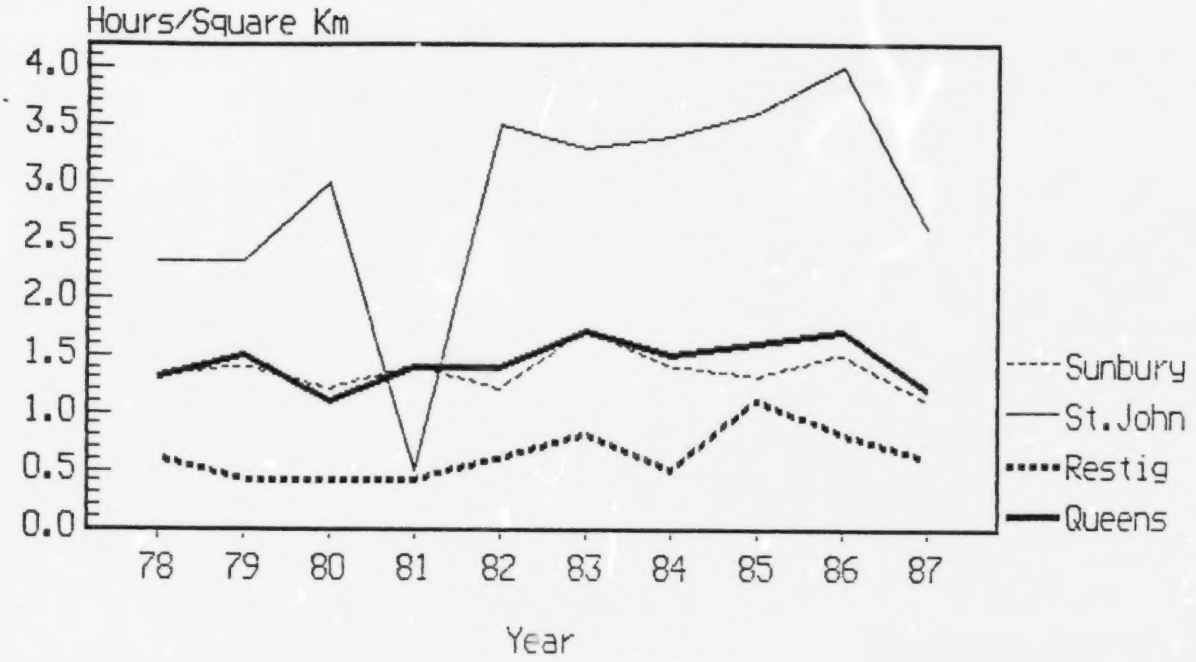
HUNTING PRESSURE ON MOOSE FOR
ALBERT, CARLETON, CHARLOTTE
AND GLOUCESTER COUNTIES
New Brunswick 1978-1987



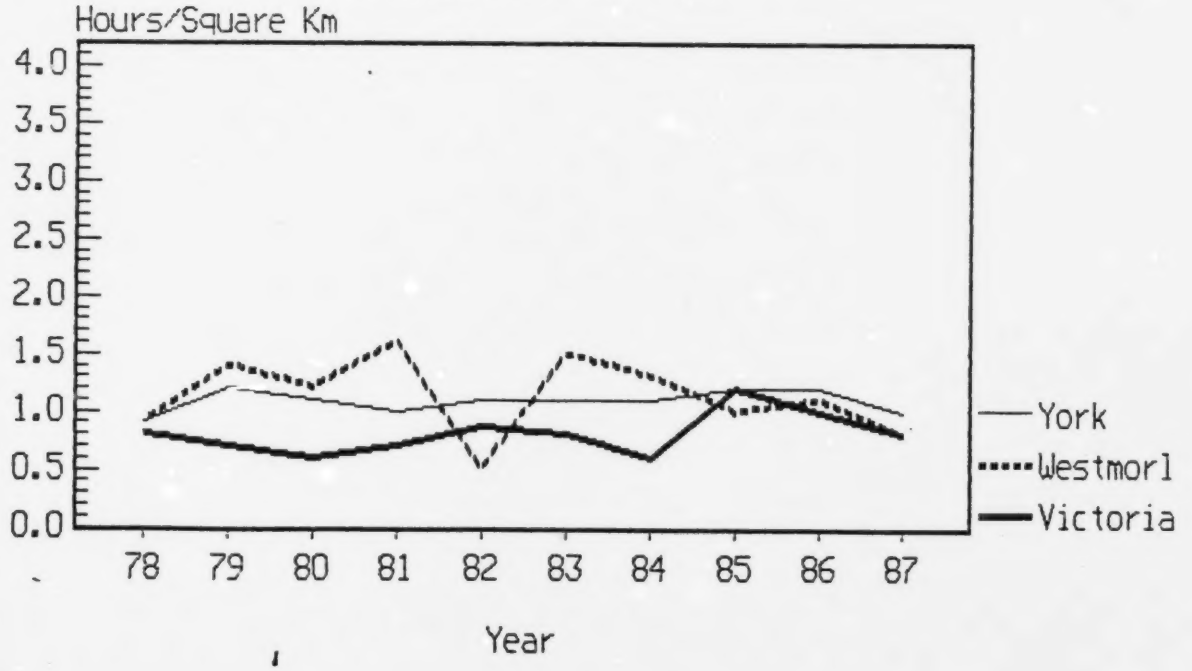
HUNTING PRESSURE ON MOOSE FOR
KENT, KINGS, MADAWASKA
AND NORTHUMBERLAND COUNTIES
New Brunswick 1978-1987



HUNTING PRESSURE ON MOOSE FOR
QUEENS, RESTIGOUCHE, ST. JOHN
AND SUNBURY COUNTIES
New Brunswick 1978-1987



HUNTING PRESSURE ON MOOSE FOR
VICTORIA, WESTMORLAND
AND YORK COUNTIES
New Brunswick 1978-1987



TOTAL HOURS HUNTED/KM^2 FOR MOOSE BY COUNTY FOR SUCCESSFUL HUNTERS IN NEW BRUNSWICK, 1978-87

County	78	79	80	81	82	83	84	85	86	87
Albert	0.6	0.4	0.5	0.4	0.4	0.2	0.3	0.2	0.2	0.2
Carleton	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.3
Charlotte	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.5
Gloucester	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4
Kent	0.4	0.3	0.2	0.3	0.4	0.3	0.4	0.3	0.3	0.4
Kings	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3
Madawaska	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
North'land	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Queens	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.5	0.4
Restigouche	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
St. John	0.5	0.6	0.6	0.4	0.7	0.5	1.1	0.7	1.0	1.0
Sunbury	0.4	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.4	0.4
Victoria	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
West'land	0.2	0.2	0.2	0.4	0.3	0.4	0.3	0.2	0.3	0.2
York	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4